Examiner: PRICE, Craig James

Page 3 of 12

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

(Currently Amended) A roll-over valve for a blow-by gas circulation system of an

engine, the roll-over valve comprising:

a valve housing having an inner chamber that defines an axis, an inlet opening

disposed in a lateral side of the valve housing, and an outlet opening disposed in the valve

housing; and

a piston slidingly disposed in the inner chamber for movement relative to the valve

housing along the axis, the piston having normal and roll-over positions relative to the valve

housing, wherein the inlet and outlet openings fluidly connect to each other via the inner

chamber when the piston is in the normal position, wherein the piston slides from its normal

position to its roll-over position under the force of gravity when the valve rolls into an

overturned position, [[and]] wherein the piston blocks at least one of the inlet and outlet

openings to prevent fluid flow through the inner chamber when the piston is in its roll-over

position, and wherein the piston slides from its roll-over position to its normal position

independently of a fluid pressure in the inner chamber when the valve rolls into an upright

position.

2. (Withdrawn) The roll-over valve of claim 1, further comprising a blow-off valve

fluidly connecting the inlet and outlet openings, wherein the blow-off valve opens when a

pressure in the inlet opening exceeds a predetermined pressure relative to a pressure in the

outlet opening.

3. (Withdrawn) The roll-over valve of claim 2, wherein the blow-off valve closes when

the pressure in the inlet opening falls below the predetermined pressure.

4. (Original) The roll-over valve of claim 1, further comprising an air-bleed passage

that fluidly connects portions of the inner chamber that are disposed on opposing axial sides

of the piston.

MONTREAL:717559.1

Examiner: PRICE, Craig James

Page 4 of 12

5. (Original) The roll-over valve of claim 4, wherein the air-bleed passage has first and

second opposing ends, wherein the first end of the air-bleed passage fluidly connects to a

bottom axial portion of the inner chamber such that the first end aligns with the axis, and

wherein the second end fluidly connects to the outlet opening.

6. (Withdrawn) The roll-over valve of claim 4, wherein the air-bleed passage comprises

an axially extending bore in the piston.

7. (Withdrawn) The roll-over valve of claim 6, further comprising an inner piston

slidingly disposed in the bore, wherein the inner piston has normal and roll-over positions

relative to the piston, and wherein the inner piston blocks the air-bleed passage when the

inner piston is in its roll-over position.

8. (Withdrawn) The roll-over valve of claim 7, wherein the inner piston has a guiding

portion that has a polygonal cross-section that guides the inner piston along the axis of the

bore.

9. (Withdrawn) The roll-over valve of claim 8, wherein the inner piston has a guiding

portion that has a cross-sectional area that is at least 85% of a cross-sectional area of the

surrounding bore.

10. (Withdrawn) The roll-over valve of claim 7, wherein the inner piston has a frusto-

conical upper surface, and wherein an upper portion of the bore has a reduced diameter

frusto-conical surface that seals against the frusto-conical upper surface of the inner piston

when the inner piston moves into its roll-over position.

(Original) The roll-over valve of claim 1, wherein the inlet opening connects to the 11.

inner chamber at a position where any pressure that develops in the inlet opening does not

urge the piston into the roll-over position.

12. (Original) The roll-over valve of claim 1, wherein the outlet opening is disposed at an

upper axial end of the inner chamber.

MONTREAL:717559.1

Examiner: PRICE, Craig James

Page 5 of 12

13. (Original) The roll-over valve of claim 1, wherein an upper portion of the piston has

a frusto-conical surface.

14. (Withdrawn) The roll-over valve of claim 13, wherein the outlet opening has a

frusto-conical surface that seals against the frusto-conical surface of the piston when the

piston is in the rollover position.

15. (Withdrawn) The roll-over valve of claim 1 in combination with a blow-by gas

circulation system comprising:

an oil tank having

an inlet adapted to accept blow-by gas from an engine, and

an upper portion that is adapted to be above an oil level in the oil tank when

the oil tank is upright;

an oil separator having an inlet adapted to accept blow-by gas, and an outlet adapted

to direct blow-by gas to an intake system of the engine; and

a blow-by gas line fluidly connecting the upper portion of the oil tank to the inlet of

the oil separator,

wherein the roll-over valve is disposed in the blow-by gas line such that the inlet

opening fluidly connects to the upper portion of the oil tank and the outlet opening fluidly

connects to the inlet of the oil separator.

16. - 25.(Canceled)

26. (New) A roll-over valve for a blow-by gas circulation system of an engine, the roll-

over valve comprising:

a valve housing having an inner chamber that defines an axis, an inlet opening

disposed in a lateral side of the valve housing, and an outlet opening disposed in the valve

housing; and

a piston slidingly disposed in the inner chamber for movement relative to the valve

housing along the axis, the piston having a sealing surface adapted to cooperate with the

lateral side of the valve housing to substantially prevent fluid flow therebetween, the piston

having normal and roll-over positions relative to the valve housing, wherein the inlet and

outlet openings fluidly connect to each other via the inner chamber when the piston is in the

normal position, wherein the piston slides from its normal position to its roll-over position

Examiner: PRICE, Craig James

Page 6 of 12

under the force of gravity when the valve rolls into an overturned position, and wherein the

piston blocks at least one of the inlet and outlet openings to prevent fluid flow through the

inner chamber when the piston is in its roll-over position.

27. (New) The roll-over valve of claim 26, further comprising an air-bleed passage that

fluidly connects portions of the inner chamber that are disposed on opposing axial sides of

the piston.

28. (New) The roll-over valve of claim 26, wherein the inlet opening connects to the inner

chamber at a position where any pressure that develops in the inlet opening does not urge the

piston into the roll-over position.

29. (New) The roll-over valve of claim 26, wherein the outlet opening is disposed at an

upper axial end of the inner chamber.

30. (New) The roll-over valve of claim 26, wherein the sealing surface comprises a tight

clearance between the piston and the valve housing.

MONTREAL:717559.1